

REMARKS

The Office Action of January 8, 2003 has been received and its contents carefully reviewed. The examiner has indicated that Applicants' arguments with regard to the restriction requirement were not persuasive and as such the restriction was made final and claims 12 - 16 were withdrawn from consideration. Applicants maintain the objection to the restriction requirement and reserve the right to file claims to the withdrawn subject matter at a later date. Claims 20 - 23 have been cancelled. Claims 1 and 4 - 7 have been amended. Claims 1 - 19 and 24 - 31 are currently pending in the application. Paragraph [01] of the specification has been amended to update the status of a co-pending application. Paragraph [75] has been amended to more clearly describe the present invention. No new matter has been added.

Applicants gratefully acknowledge the examiner's statement that claims 17 - 19 and 24 - 31 are allowed.

Claim 1 has been amended solely to more clearly define and recite the present invention. The amendments are not in any way related to the examiner's rejection based on prior art nor any applied or cited prior art. This amendment has been made in the interest of rapid prosecution and without prejudice to Applicant's right to prosecute claims of similar or different scope to the unamended claims in one or more continuation applications.

The examiner objected to claims 4 - 7 for the reasons set forth in the Office Action. Applicants have amended claims 4 and 7 as suggested by the examiner. Claim 5 has been amended in part as suggested by the examiner. With regard to changing "an" (claim 5, line 3) to "the", it is Applicants' contention that the "outer braid" has not been affirmatively claimed in the claims and as such it is proper to refer to the element as an indefinite article. Furthermore, the "coaxial cable" of claim 5 has not been affirmatively claimed and as such the claim has been amended to refer to "a coaxial cable" instead of "the coaxial cable." The same theory is applied to the claim 6.

Claims 20 - 23 have been cancelled and as such, the rejection under 35 U.S.C. §112, second paragraph has been rendered moot.

Claims 1 - 3 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by either U.S. Patent No. 6,101,712 to Wright (hereinafter "the '712 reference) or U.S. Patent No. 4,701,001 to Verhoeven (hereinafter "the '001 reference). This rejection is respectfully traversed.

With regard to the '001 reference, the connector disclosed therein fails to teach or suggest all of the elements of claim 1, as required by 35 U.S.C. §102. Specifically, the '001 reference describes a connector for a coaxial cable including a contact element 3 having fork-like teeth and a slot therebetween. The cutting edges of the contact element 3 will penetrate through an optional outer cable sheath and electrically contact the outer conductor of a coaxial cable when the cable is pushed into and between the teeth of the contact and into the slot (Col. 4, lines 50 - 56). However, while the contact 3 does cut the external sheath it does not cut through the electrically conducting sheath but merely makes contact with it (Col. 6, lines 58 - 60). As such, the '001 reference fails to teach or even suggest a connector having a coaxial cable displacement section having a displacement beam configured to pierce and hold an outer braid conductor of a coaxial cable.

With regard to the '712 reference, the connector disclosed therein fails to teach or suggest all of the elements of claim 1, as required by 35 U.S.C. §102. Specifically, the '712 reference describes a connector for a coaxial cable including a ground shell 12 having a leg 80 which includes a leg portion 104. The leg portion is constructed and arranged to provide cutting surfaces 106 which penetrate a jacket 108 of a cable 30 and effect an electrical connection with a ground wire braid 32 of the cable (Col. 4, lines 47 - 50). The leg portion 104 barely penetrates the ground wire braid 32 (apparently mislabeled in Figure 5) and ~~can not possibly hold the wire braid with a~~ *disagreed* retention force as set forth in claim 1.

As described in the specification of the present application at page 13, paragraph 61, page 14, paragraph 64, page 17, paragraph 75, and illustrated in Figure 9, the displacement beams induce a lateral retention force on the outer braid conductor that is wedged in the receiving slots, this retention

force constitutes a friction force, and the plastic deformation of the conductive braid results in the retained (retention) spring force between the conductors of the braid and the coaxial cable displacement contacts.

The leg portion 104 as described in the '712 reference simply would not provide a retention force as it is described in the present specification.

As such, the '712 reference fails to teach or even suggest a connector having a coaxial cable displacement section having a displacement beam configured to pierce and hold an outer braid conductor of a coaxial cable with a retention force.

In light of the foregoing, it is respectfully submitted that independent claim 1 and the claims dependent upon it are patentably distinct from the '712 and '001 references. It is respectfully requested that the examiner reconsider and withdraw the rejection.

Claims 7 and 8 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by the '712 reference. This rejection is respectfully traversed.

As claims 7 and 8 are dependent upon independent claim 1, which is allowable for the reasons detailed above, these claims are also allowable. It is respectfully requested that the examiner reconsider and withdraw the rejection.

Claim 10 stands rejected under 35 U.S.C. §102(b) as being clearly anticipated by the '001 reference. This rejection is respectfully traversed.

As claim 10 is dependent upon independent claim 1, which is allowable for the reasons detailed above, this claim is also allowable. It is respectfully requested that the examiner reconsider and withdraw the rejection.

For the reasons set out above, it is respectfully requested that the examiner withdraw all of the pending rejections and issue a Notice of Allowance for all of the presently pending claims at the earliest possible time.

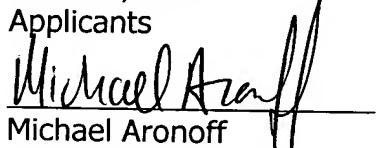
If the examiner has any questions regarding the presently pending claims which could be easily resolved by a telephone conference, the examiner is respectfully requested to contact the Applicants' representative at the below listed number.

Respectfully submitted,

M. Laub, et al.

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Version with markings to show changes made

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In the Specification:

[01] The present application relates to co-pending application Serial No. 10/005,625 (Tyco Docket No. 17711 (MHM Docket No. 13238US01)) filed on December 5, 2001 and entitled "Coaxial Cable Connector". The co-pending application names Michael F. Laub; Richard J. Perko; Sean P. McCarthy; and Jerry H. Bogar as joint inventors and is assigned to the same assignee as the present application and is incorporated by reference herein in its entirety including the specification, drawings, claims, abstract and the like.

[75] In accordance with at least one embodiment, the contact shells 20 and 22 afford a one-piece contact system that utilizes the insulated housings 12 and 14 as "stuffers" to retain the coaxial cables (e.g., cable 160) intact during a crimping process. The insulated housings 12 and 14 also assist in locating the coaxial cables 160. The width of the braid-receiving slot is dependent upon the diameter of the conductive braid. By way of example only, the braid-receiving slot width may be slightly larger (e.g., a few thousandths of an inch) than the diameter of the conductive braid ~~with thereby allowing~~ multiple conductors of the braid to be received in each braid-receiving slot. Due to a spring force of the displacement contacts 138, particularly of the displacement beams 154 This permits a significant amount of plastic deformation of the conductive braid occurs during the assembly process. ~~Deformation of the conductive braid along with the~~ The wiping action that occurs during assembly ensures that clean metallic surfaces on the multiple conductors of the conductive braid come into contact with the coaxial cable displacement contacts 138. ~~The while retaining a desired amount of residual spring force between the~~ multiple conductors and the coaxial cable displacement contacts 138 help to retain the conductors in the braid-receiving slot. ~~This~~ Retaining a desired residual retention spring force between the braid conductors and the coaxial cable displacement contacts 138 assists in



maintaining provides a stable long term, low resistance contact interface.

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In the Claims:

1. (Amended) A coaxial cable connector, comprising:
an inner contact configured to be securable to a center conductor of a coaxial cable;

 a connector housing having a cavity for receiving said inner contact and configured for receiving the coaxial cable;

 an outer contact secured to said connector housing and configured to be securable to an outer braid conductor of the coaxial cable; and

 a coaxial cable displacement section connected to said outer contact, the coaxial cable displacement section having a displacement beam configured to pierce and hold an outer braid conductor of a coaxial cable with a residual retention force.

4. (Amended) The coaxial cable connector of claim 1, wherein the coaxial cable displacement contact section further comprises a pair of braid-receiving slots separated from one another by a distance corresponding to a diameter of an outer braid conductor of a coaxial cable.

5. (Amended) The coaxial cable connector of claim 1, wherein the coaxial cable displacement section includes a braid-receiving slot, each the braid-receiving slot being configured to receive, and exert said retention force on, an outer braid conductor of the a coaxial cable.

6. (Amended) The coaxial cable connector of claim 1, wherein the displacement beam includes an evenly tapered tip configured to guide said displacement beam along a straight path into a dielectric layer between a center and an outer braid conductors of a coaxial cable.

7. (Amended) The coaxial cable connector of claim 1, wherein said inner contact represents a first inner contact, said connector further comprising:

a second inner contact matable with said first inner contact, said second inner contact being configured to be secured to a center conductor of a second coaxial.